

# Work Order ID 51675

August 27, 2009 8:41:13 AM

Page 1

Item ID: D3564-9 **64**

Accept

Revision ID: D

Item Name: Wearshoe

Setup Start

Stop

Start Date: 8/27/09 Start Qty: 40.00

Required Date: 9/11/09 Req'd Qty: 40.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: **AL**

Date: **09-8-27**

Tooling:

Date:

Run Start

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3564

Rev D

**44**

**B 9-9-1**

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3564 \*\*\*\*\* (D3564-1F) \*\*\*\*\*; Dwg Rev: **D** Prog  
Rev: **D** 2-Deburr if necessary

**(44)**

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

**B 9-9-1**

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

**2) 802/09/02**

**count 44**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 51675

August 27, 2009 8:41:13 AM

Page 2

Item ID: D3564-9

Accept

Revision ID: D

Item Name: Wearshoe

Setup Start

Stop

Start Date: 8/27/09

Start Qty: 40.00

Required Date: 9/11/09

Req'd Qty: 40.00

Cust Item ID:

Customer:

Reference:

Run Start

Stop

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130



Brake NC

Brake NC

NC BRAKE

Memo

Deburr if necessary Form on Brake as per Dwg D3564 using Jigs DT 8129 and DT 8155 Form Joggle as per Dwg D3564 on brake using Jig DT 8157

0.00

0.00

Sh 09/09/02  
EP 09/09/02

44  
(44)

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

Ensure joggle as per dwg D3429

0.00

0.00

2) 807/02/02

contd  
(44)

φ

150



Large Fab

Large Fab

Large Fab

Memo

Qty Description Batch# A/R  
M112359 Weld hardcoat as per Dwg D3564

0.00

0.00

2059B Hardcoat

EL

9-9-8

(44)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 51675

August 27, 2009 8:41:13 AM



Item ID: D3564-9

Accept



Setup Start



Revision ID: D

Stop



Item Name: Wearshoe

Start Date: 8/27/09

Start Qty: 40.00



Cust Item ID:

Required Date: 9/11/09

Req'd Qty: 40.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

2) 8/27/08



Memo

0.00

170



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

2) 8/27/08



Memo

0.00

180



Powdercoat

Powder Coating

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

M 109091.

11:30-12:00



Memo

0.00

START TIME:

11:30

OVEN TEMPERATURE:

320° FINISH TIME:

12:00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 51675

August 27, 2009 8:41:13 AM

Page 4

Item ID: D3564-9

Accept

Revision ID: D

Item Name: Wearshoe

Start Date: 8/27/09 Start Qty: 40.00

Required Date: 9/11/09 Req'd Qty: 40.00

Reference:

Approvals: Process Plan:

Date: Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190

QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

9/9/09

(44x)

SP

200

Identify as per dwg & Stock Location

0.00

Packaging

Memo

0.00

Packaging

BK 09-09-09

(44)

210

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

09/09/11

MF 09-09-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

August 27, 2009 8:41:13 AM

Page 1

Work Order ID: 51675

Parent Item: D3564-9RevD

Parent Item Name: Wearshoe

Comments:

Start Date: 8/27/09

Required Date: 9/11/09

Start Qty: 40.00

Required Qty: 40.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			100	sf	150.0498	46.3158			



304/316 Sheet .063

50.9473

1B 9-9-1

Warehouse Loc Qty Loc Code

Location

Main Warehouse

MAT

150.0497737

106860

16.018

111924

33.0549737

112290

100.9768

112442

112442

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	51675
<b>Description:</b> Wearshoe		<b>Part Number:</b>	D3564-9
<b>Inspection Dwg:</b> D3564 <b>Rev:</b> D		<b>Page 1 of 1</b>	

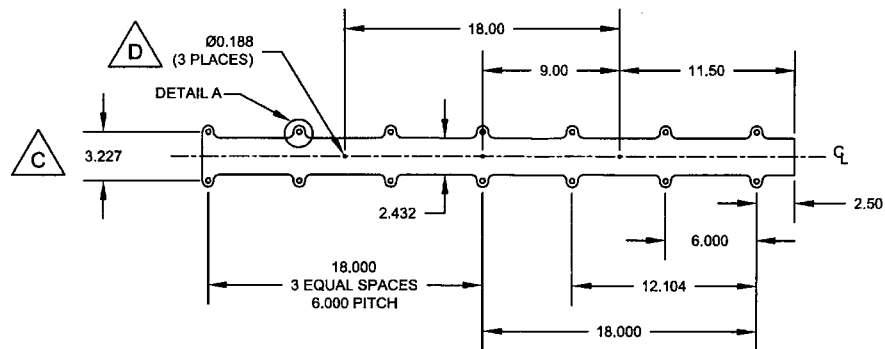
### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.227	+/-0.010	3.225	X			
2.432	+/-0.010	2.433	X			
2.50	+/-0.030	2.500	X			
6.000	+/-0.010	6.001	X			
12.104	+/-0.010	12.104	X			
18.000	+/-0.010	18.000	X			
18.000	+/-0.010	18.000	X			
18.00	+/-0.030	18.00	X			
9.00	+/-0.030	9.00	X			
11.50	+/-0.030	11.50	X			
0.300 x 0.300	+/-0.010	301 x 303	X			
Ø0.188	+0.005/-0.001	.190	X			
R0.375	+/-0.010	.375	X			
0.063	+/-0.010	.062	X			

<b>Measured by:</b>	IB	<b>Audited by:</b>	S	<b>Prototype Approval:</b>	N/A
<b>Date:</b>	9-1	<b>Date:</b>	01/01/02	<b>Date:</b>	N/A

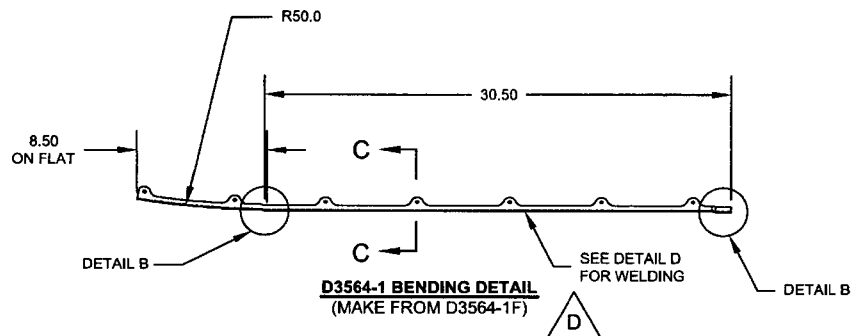
Rev	Date	Change	Revised by	Approved
A	08.01.16	New Issue	KJ/EC/DD	



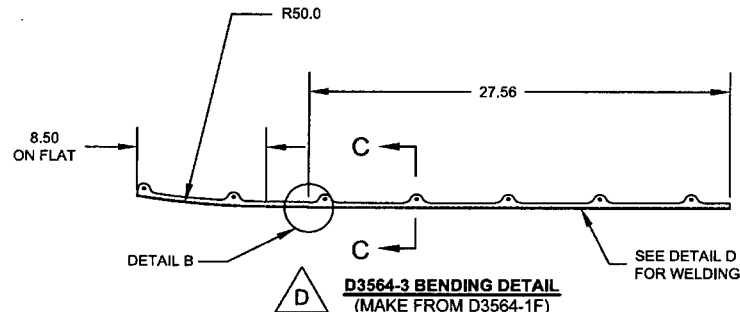
**D3564-1F FLAT PATTERN**

**RELEASED**

07.09.04



**D3564-1 BENDING DETAIL**  
(MAKE FROM D3564-1F)



**D3564-3 BENDING DETAIL**  
(MAKE FROM D3564-1F)

**D3564-1/-3/-5/-7/-9/-11/-13/-15 WEARPLATE NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 16 GAUGE (0.063 THICK)  
(REF DART MATERIAL SPEC M304S16GA)
- 2) FINISH: POWDER COAT GREY SANDEX (REF 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: SEE TABLE IN ZONE A3
- 8) WELD PER DART QSI 004
- 9) SEE PG 3 FOR SECTIONS AND DETAILS
- 10) PARTS ARE SYMMETRIC ABOUT  $\bar{C}$

51675

WEIGHTS:	
D3564-1	1.85 lbs
D3564-3	1.85 lbs
D3564-5	1.93 lbs
D3564-7	1.26 lbs
D3564-9	1.85 lbs
D3564-11	1.85 lbs
D3564-13	0.38 lbs
D3564-15	0.80 lbs

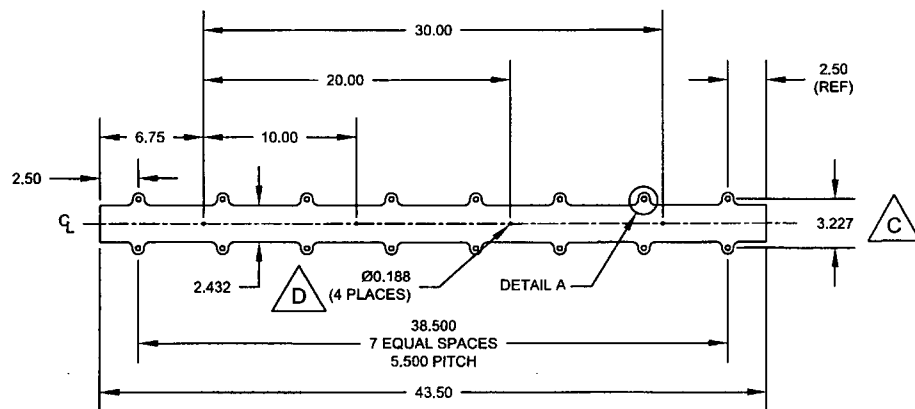
D	UPDATE DRAWING TEMPLATE; CHANGE ALL (TYP X PLS) TO (X PLACES); PG1 A8: UPDATE NOTES; PG1 A8, PG3 B5, C5: ADD D3564-15; PG1 B6, B3: D3564-1/-3 WAS ONE FIGURE; PG2 A7, A3: D3564-9/-11 WAS ONE FIGURE; PG2 A7, A3: D3564-9/-11 WAS ON PG1; PG3 B8, C8: D3564-13 WAS ON PG2; PG3 D2: WELDING DETAIL WAS ON PG1 PG3 A5, 7, B2: RELOCATE DETAILS AND SECTION; PG3 A5, 7, B2: INCREASE DETAIL AND SECTION SIZE	CB	07.08.21
C	MOVE TAB OUTBOARD, DETAIL A	PH	07.04.17
B	ADD AMS 5513 AND AMS 5524	PH	07.03.20
A	NEW ISSUE	PH	06.12.18
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	CB		
CHECKED	PH		
MFG. APPR.	PH		
APPROVED	PH		
DE APPR.	PH		
DATE	07.08.21		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

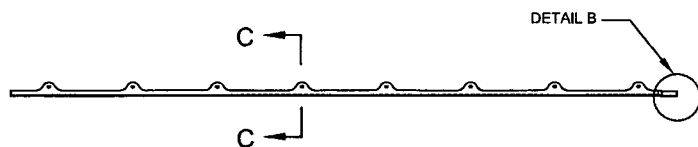
DRAWING NO. REV. D  
D3564 SHEET 1 OF 3  
TITLE SCALE  
WEARSHOE 1:8

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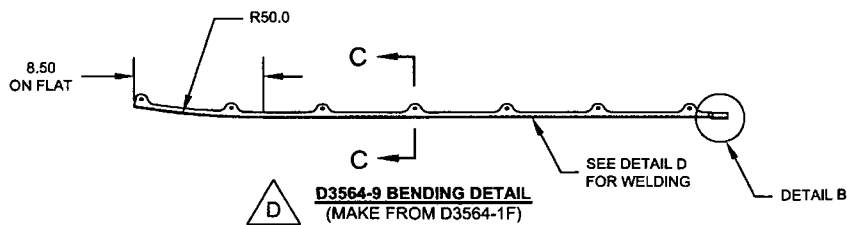
8 7 6 5 4 3 2 1



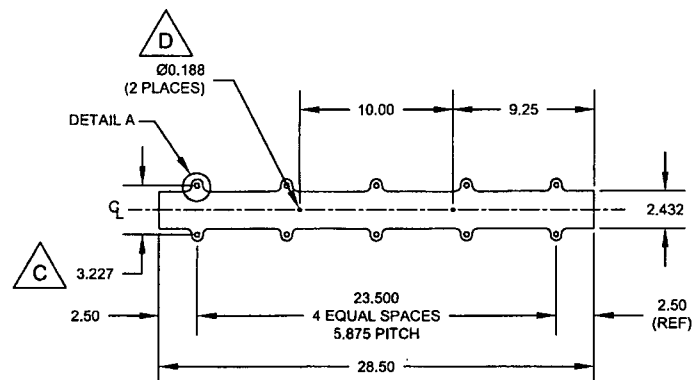
**D3564-5F FLAT PATTERN**



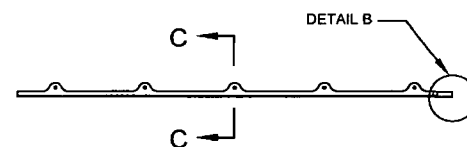
**D3564-5 BENDING DETAIL**  
(MAKE D3564-5 FROM D3564-5F)



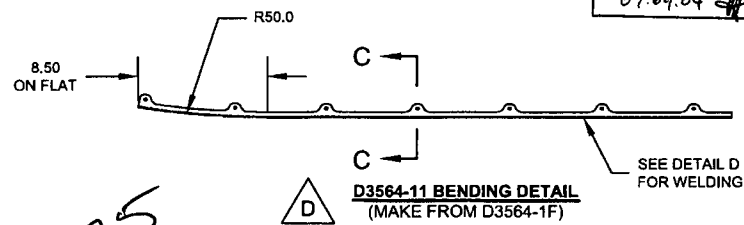
**D3564-9 BENDING DETAIL**  
(MAKE FROM D3564-1F)



**D3564-7F FLAT PATTERN**



**D3564-7 BENDING DETAIL**  
(MAKE D3564-7 FROM D3564-7F)



**D3564-11 BENDING DETAIL**  
(MAKE FROM D3564-1F)

RELEASED

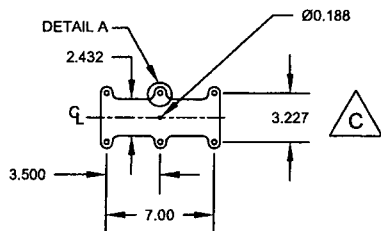
07.09.04

51675

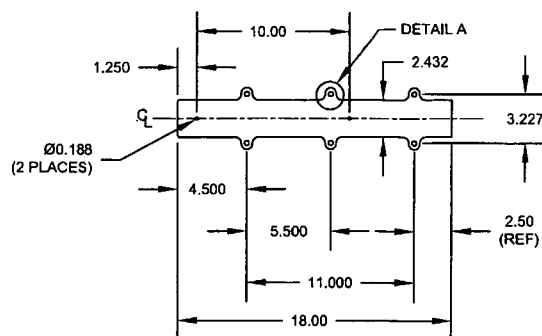
DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	CB		
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D3564	SHEET 2 OF 3
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	WEARSHOE	1:8
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8 7 6 5 4 3 2 1

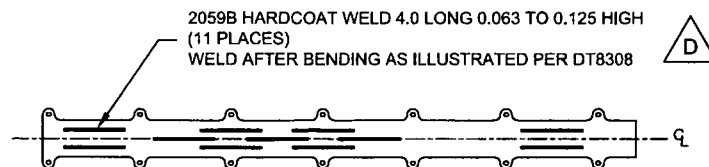
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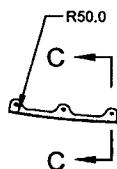
**D3564-13F FLAT PATTERN**



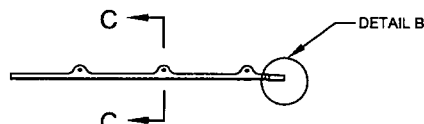
**D3564-15F FLAT PATTERN**



**DETAIL D**  
(D3564-1/-3/-9/-11 WELDING DETAIL)



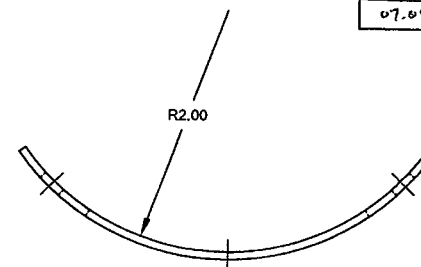
**D3564-13 BENDING DETAIL**  
(MAKE D3564-13 FROM D3564-13F)



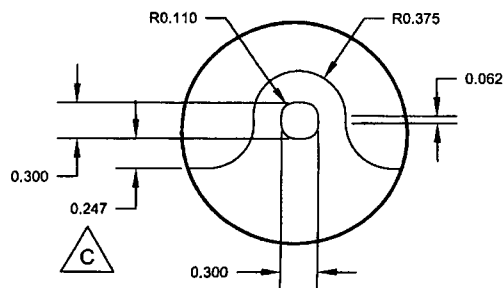
**D3564-15 BENDING DETAIL**  
(MAKE D3564-15 FROM D3564-15F)

**RELEASED**

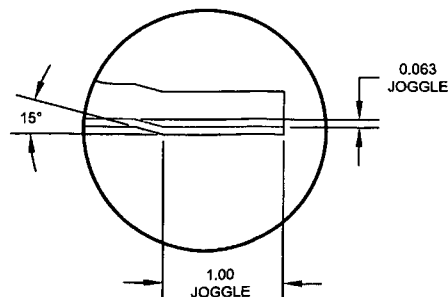
07.09.04



**SECTION C-C**  
SCALE 1:1



**DETAIL A**  
SCALE 1:1



**DETAIL B**  
SCALE 1:1

51675

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D3564	SHEET 3 OF 3
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DE APPR.	PH	WEARSHOE	1:8
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8 7 6 5 4 3 2 1